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ABSTRACT

Future funding alternatives for the University of Illinois, Urban-Champaign are presented. Four variations of budget projection models were analyzed in relation to two basic sets of assumptions. Both assumptions assumed an annual rate of increase for salaries and wages and expense and equipment. The two versions vary the treatment of equipment replacement and new programs. The various projections were carried out to the year 2000 and plotted in order to emphasize the difference in various methodologies. Charts, tables, and appendices of statistical data are presented. (MJM)

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FUTURE FUNDING ALTERNATIVES - URBANA-CHAMPAIGN

Anthony F. Graziano[1]

Procedure

The total general fund budget for Urbana-Champaign and the retirement fund portion of it has been:

TABLE 1

Fiscal Year	Total General Funds	Retirement Fund Portion	Total General Fund Operating Budget
FY 1971	$101,670,025	$4,635,700	$97,034,325
FY 1972	97,839,353	2,922,500	94,916,853
FY 1973	103,473,502	4,540,500	98,933,002

Table 2 presents the total operating budget (excluding retirement) and its major components for the past three years. It describes what has happened to major operating budget items during two years of serious cutbacks. In order to test possible future funding policies, four variations of fund increases were applied to the FY 1971 and FY 1973 budgets.

TABLE 2

URBANA-CHAMPAIGN GENERAL FUND OPERATING BUDGET

	FY'71	FY'72	FY'73
Salaries & Wages	$81,733,860 (84%)	$82,363,993 (87%)	$86,655,478 (88%)
Expense & Equipment	$15,280,465 (16%)	$12,552,860 (13%)	$12,277,524 (12%)
Operating Total	$97,034,325	$94,916,853	$98,933,002
SUBTOTAL EXPENSE	$12,800,465 (13%)	$11,562,860 (12%)	$11,282,524 (11%)
SUBTOTAL EQUIPMENT	$ 2,480,000 (3%)	$ 990,000 (1%)	$ 995,000 (1%)

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The variations of fund increases assume different rates of increase for the major budget components: salary and wages (S & W), expense and equipment (E & E), equipment replacement (ER), and new programs (NP). Table 3 presents a brief description of the variations of the model. While the variations assume standard compound rates of growth for S & W, and E & E, varying assumptions are made about the future funding policies for ER and NP.

T A B L E 3

FOUR VARIATIONS OF BUDGET PROJECTION MODEL

	CASE 1	CASE 2	CASE 3	CASE 4
Salaries & Wages(1)	3 1/2%	4 1/2%	5 1/2%	5 1/2%
Expense & Equipment(1)	3%	4%	5%	4%
Equipment Replacement(2)	1%	1.5%	2%	1%
New Programs(2)	1.5%	1%	.5%	.5%
Composite	(5.93%)	(6.93%)	(7.93%)	(6.79%)

(1) Calculated on previous year's base for S & W or E & E

(2) Calculated on previous year's total operating budget base

Two sets of basic assumptions were applied to each of the funding variations. Both assumed an annual compound rate of increase for S & W and E & E, the two major components subject to annual demands for merit and cost increases. But the two versions vary the treatment of ER and NP funding.

The first version assumes alternative choices of funding ER and NP--as incremental "year by year" amounts and as cumulative additions to the base.

VERSION 1: Increase the base year figures at a compound rate for S & W and for E & E, then

generate a subtotal for this amount in each of the projected years. Increase ER and NP by stipulated year by year increments and also generate a cumulative total. Print the incremental year by year amounts and the cumulative amounts. Create three projected totals:

(1) S&W + E&E + (ER+NP) year by year amounts

(2) S&W + E&E + (ER+NP) cumulative amounts

(3) S&W + E&E + ER year by year + NP cumulative

The second version assumes that a permanent annual pool for equipment replacement (ER) and new programs (NP) is established once and that this pool will increase annually at varying rates of inflation.

VERSION 2: Increase the base year figures at a compound rate for S & W and for E & E, then generate a subtotal for this amount in each of the projected years. To the year following the base years of FY 1971 and FY 1973, add a "one time" incremental ER and NP amount equal to the percentage increases specified in Table 3 for equipment replacement and new programs. From the newly generated FY 1972 and FY 1974 base years, increase the amount for ER and NP as follows:

(1) increase ER by 3% per year, and increase NP by 3 1/2% per year,

(2) increase ER by 4% per year, and increase NP by 4 1/2% per year,

(3) increase ER by 5% per year, and increase NP by 5 1/2% per year, and

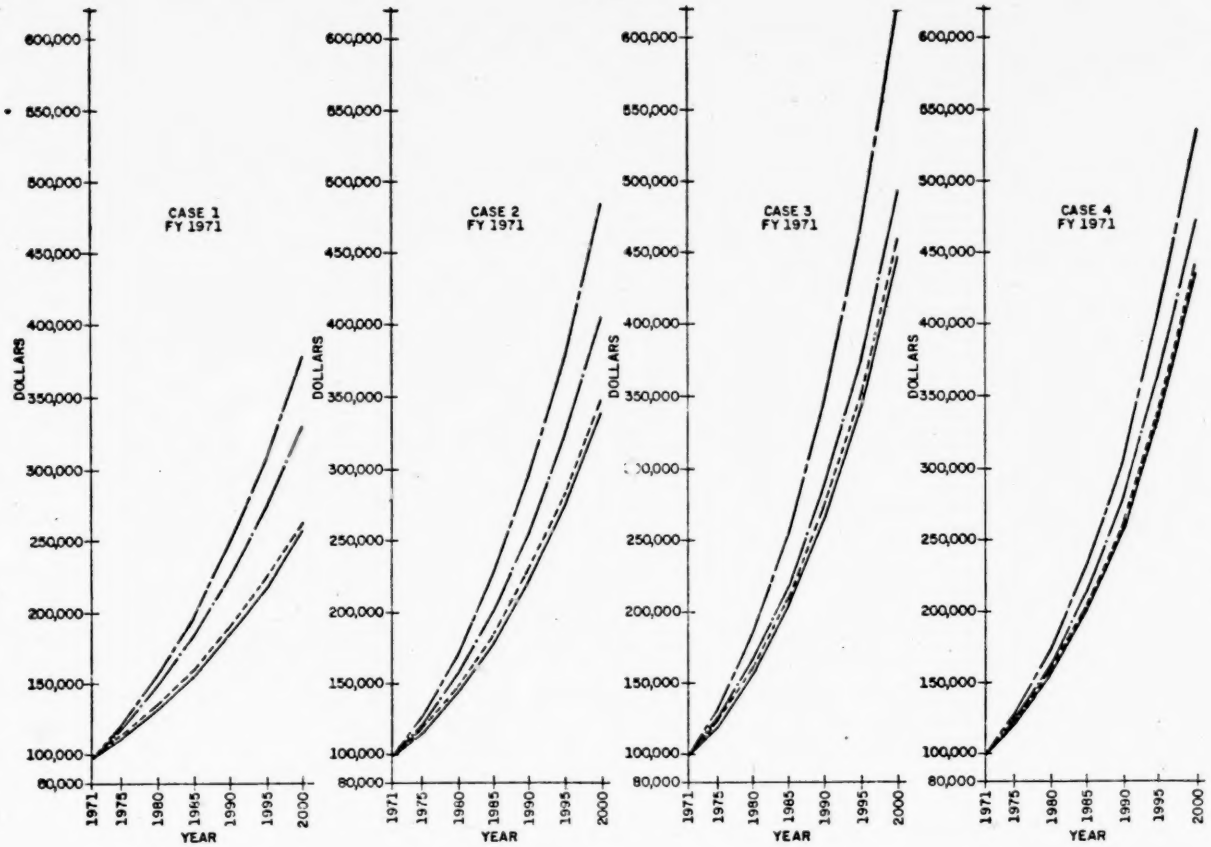
(4) increase ER by 4% per year, and increase NP by 5 1/2% per year.

Results

The various projections described above were carried out to the year 2000 and plotted as Figures 1 and 2 in order to emphasize the difference in the various methodologies. Version 1 results are presented in Figure 1 and Appendix 1. Version 2 results are presented in Figure 2 and Appendix 2. The top half of Figures 1 and 2 and the top half of the individual cases presented in the appendices represent projections from Fiscal 1971, the last "normal" budget year. The bottom half of Figures 1 and 2 and the bottom half of the individual cases presented in the appendices present projections from FY 1973, the current budget year.

In the long run (to the year 2000), the base year from which projections are made would not appear to be a serious consideration. However, in the short run (to 1980), significant differences in the funding level occur by choosing FY 1973 as the base year for projections instead of FY 1971. For example, under the assumptions of Version 1, differences of the order of $10,000,000 to $15,000,000 occur in the generated 1980 budgets depending upon which alternative ER + NP policies are pursued (SEE Table 4). The Version 2 projections to 1980 vary by as little as $6,000,000 and by as much as $13,000,000, depending upon which case assumptions are assumed for the FY 1971 base and the FY 1973 base (SEE Table 5).

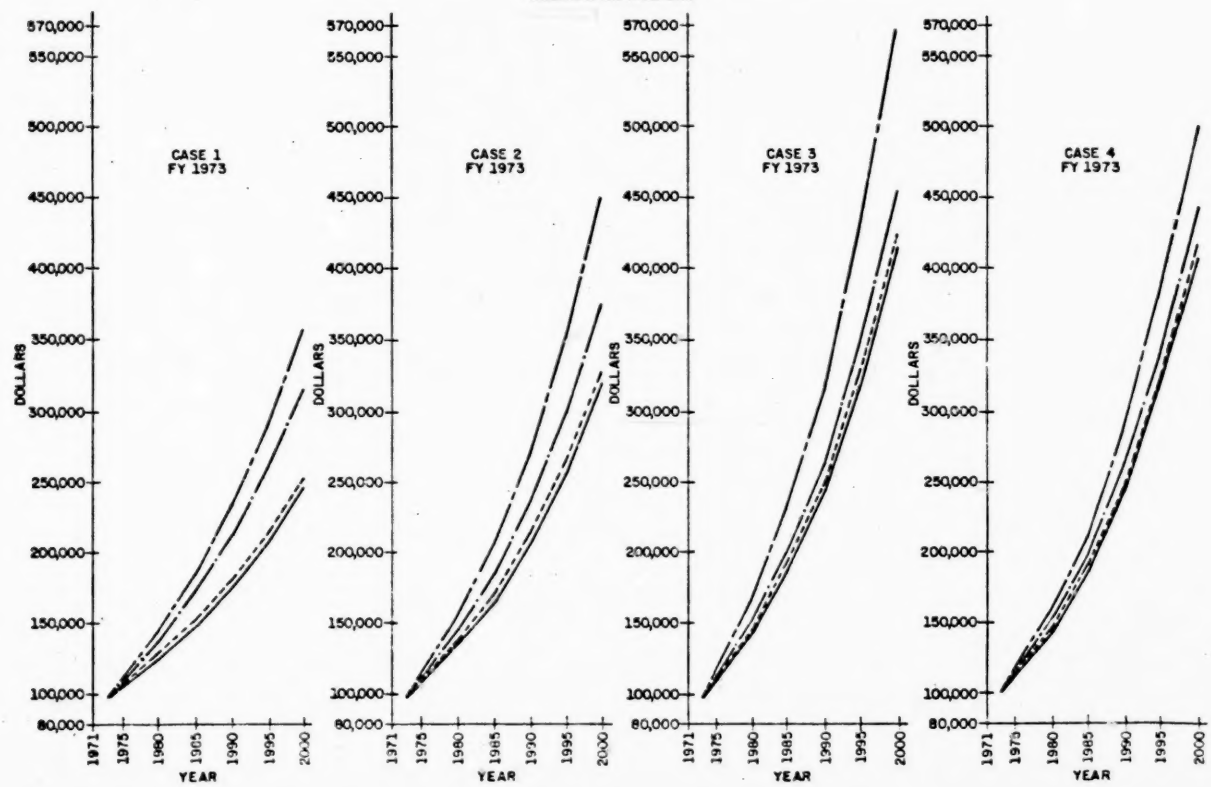
UNIVERSITY OF ILLINOIS
MODEL FOR AGGREGATE PLANNING
VERSION 1
FIG. 1



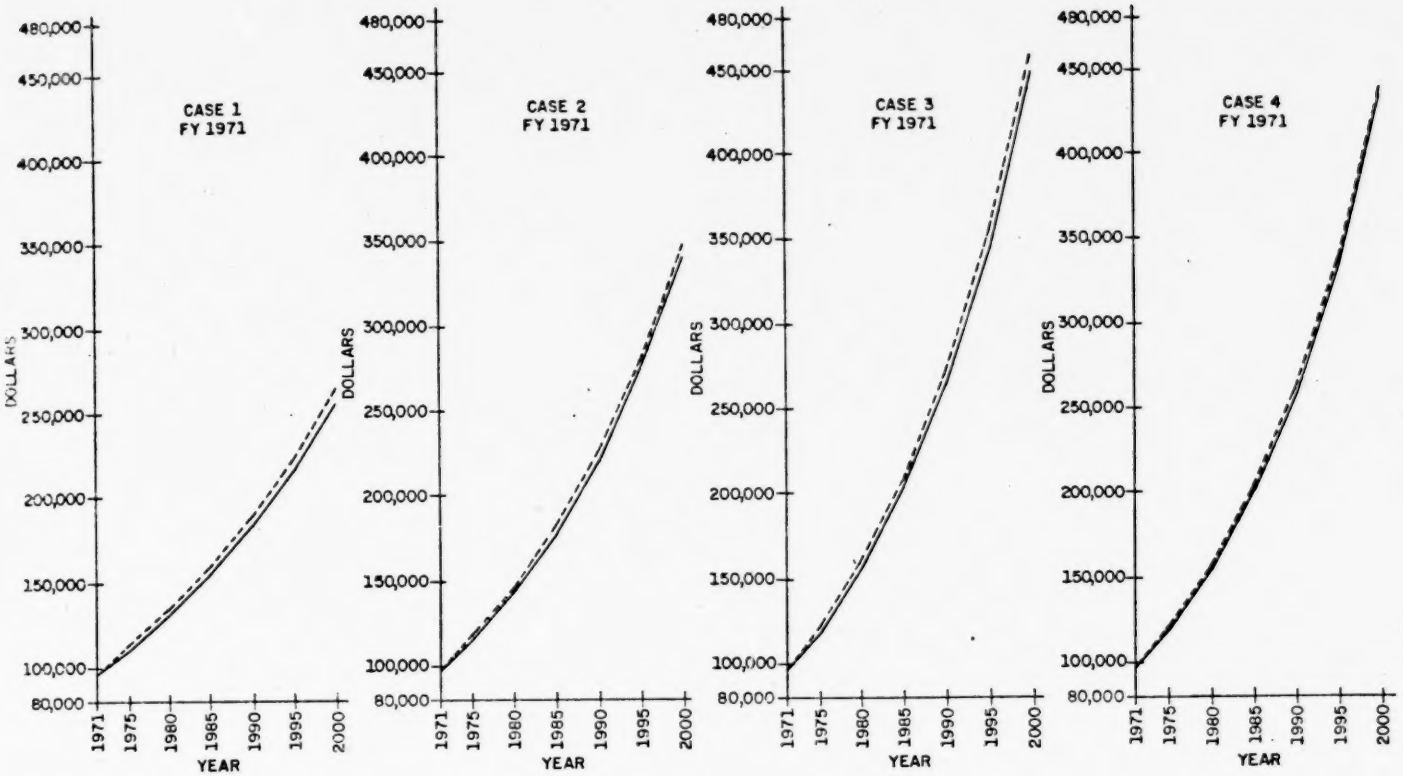
LEGEND

SUBTOTAL SW+EE
SW+EE+(ER+NP) YEAR BY YEAR
SW+EE+(ER+NP) CUMULATIVE
SW+EE+ER YEAR BY YEAR +NP CUMULATIVE

DOLLARS IN MILLIONS



UNIVERSITY OF ILLINOIS
MODEL FOR AGGREGATE PLANNING
VERSION 2
FIG. 2



LEGEND
——— SUBTOTAL SW+EE
------- SW+EE+ER+NP

DOLLARS IN MILLIONS

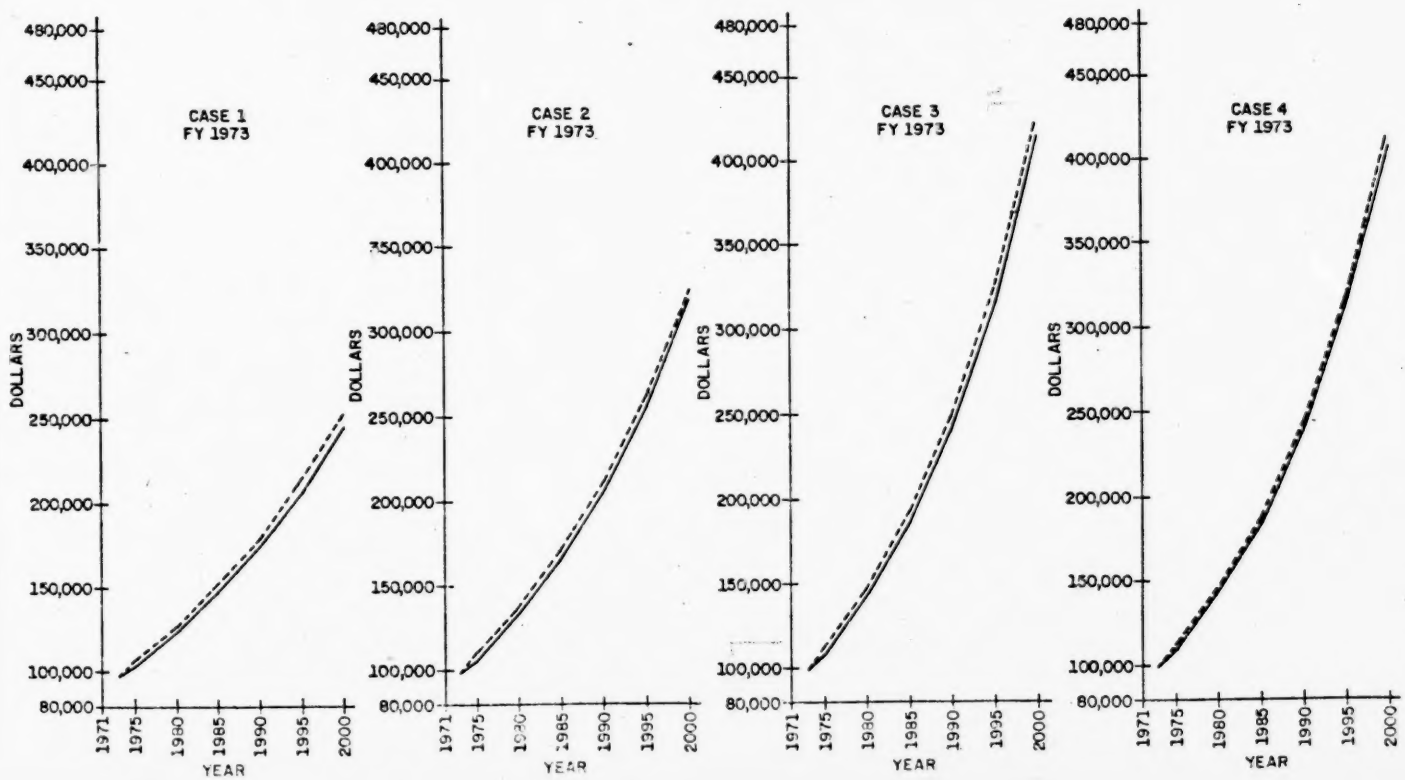


TABLE 4

VERSION 1

1980 RESULTS PROJECTED FROM FY 1971 BASE

	CASE 1	CASE 2	CASE 3	CASE 4
S & W	$111,422,000	$121,493,200	$132,366,500	$132,366,500
E & E	19,937,500	21,748,900	23,704,900	21,748,900
ER	1,313,600	2,148,600	3,121,400	1,541,200
ER_{Accum}	10,372,300	16,365,400	22,955,400	11,390,300
NP	1,970,400	1,432,400	780,400	770,600
NP_{Accum}	15,558,400	10,910,300	5,738,800	5,695,200
$SW + EE + (ER+NP)_{Yr/Yr}$	134,643,600	146,823,100	159,973,200	156,427,200
$SW + EE + (ER+NP)_{Accum}$	157,290,200	170,517,800	184,765,700	171,200,900
$SW + EE + ER_{Yr/Yr} + NP_{Accum}$	148,231,500	156,301,000	164,931,700	161,351,800

VERSION 1

1980 RESULTS PROJECTED FROM FY 1973 BASE

	CASE 1	CASE 2	CASE 3	CASE 4
S & W	$110,249,900	$117,925,500	$126,055,400	$126,055,400
E & E	15,099,700	16,156,300	17,275,600	16,156,300
ER	1,253,000	2,011,200	2,866,600	1,422,100
ER_{Accum}	7,946,200	12,405,300	17,214,600	9,555,500
NP	1,880,200	1,340,800	716,700	718,200
NP_{Accum}	11,919,300	8,270,200	4,303,700	4,325,900
$SW + EE + (ER+NP)_{Yr/Yr}$	128,483,400	137,433,900	146,914,300	145,774,200
$SW + EE + (ER+NP)_{Accum}$	145,215,100	154,757,400	164,849,300	157,515,300
$SW + EE + ER_{Yr/Yr} + NP_{Accum}$	138,522,400	144,363,300	150,501,300	149,381,900

T A B L E 5

VERSION 2

1980 RESULTS PROJECTED FROM FY 1971 BASE

	CASE 1	CASE 2	CASE 3	CASE 4
S & W	$111,422,000	$121,493,200	$132,366,500	$132,366,500
E & E	19,937,500	21,748,900	23,704,900	21,748,900
ER	1,229,100	1,992,000	2,867,100	1,327,900
NP	1,916,600	1,379,900	744,600	744,600
SW + EE + ER + NP	134,505,300	146,613,900	159,683,200	156,188,000

VERSION 2

1980 RESULTS PROJECTED FROM FY 1973 BASE

	CASE 1	CASE 2	CASE 3	CASE 4
S & W	$110,249,900	$117,925,500	$126,055,400	$126,055,400
E & E	15,099,700	16,156,300	17,275,600	16,156,300
ER	1,181,300	1,483,900	2,651,500	1,251,800
NP	1,824,100	1,288,300	682,100	682,100
SW + EE + ER + NP	128,355,000	136,854,000	146,664,600	145,567,800

The Version 1 model shows the largest future increases in funding will be derived from an operating budget with the following components:

SW + EE + (ER+NP) cumulative

The second highest funding increase will result from the following components:

SW + EE + ER year by year + NP cumulative

And the smallest increase will be generated by:

SW + EE + (ER+NP) year by year

The components presented above are annual amounts generated by formula from the preceding year's base unless a particular component has been accumulated and compounded over time.

Cases 1 through 4 generate a range of future budgets which increase the current budget by a minimum of 2 1/2 times and a maximum of 6 times by the year 2000.

It is interesting to compare these various results to projections of state revenue. First, however, let us examine Table 6 which presents past increases in state revenues and state investment in higher education from those revenues for several midwest states, New York, and California. In all these cases, except for California, the increase in higher education operating expenditures from state revenues has been greater than the increase in total state revenues. For example, the State of Ohio has been increasing its higher education operating expenditures at twice the rate at which its total state revenues have been increasing. In the case of Illinois, higher education operating expenditures have been increasing at approximately 1 1/2 times the rate of increase in total state revenues.

Table 7 presents total Illinois State government revenue for the period 1958 through 1974 and projections of this revenue through 1980 assuming annual

TABLE 6

A COMPARISON OF INCREASES IN STATE REVENUE AND IN HIGHER EDUCATION OPERATING EXPENDITURES FROM STATE REVENUES 1958-68 AND 1960-70

DOLLAR AND PER CENT INCREASE IN TOTAL STATE REVENUE(1)

	1958 THROUGH 1968			1960 THROUGH 1970		
	DOLLARS	PER CENT	APPROXIMATE ANNUAL COMPOUND RATE	DOLLARS	PER CENT	APPROXIMATE ANNUAL COMPOUND RATE
ILLINOIS	$1,778,334	160	10.0	$2,895,655	199	11.7
INDIANA	876,244	157	10.0	1,031,668	151	9.6
IOWA	541,629	125	8.7	646,930	123	8.5
MICHIGAN	1,933,528	136	9.0	2,479,330	150	9.6
MINNESOTA	949,982	182	11.0	1,166,678	186	11.1
OHIO	1,671,530	113	7.8	2,034,972	111	7.8
WISCONSIN	1,087,326	195	11.5	1,445,275	210	12.1
NEW YORK	5,046,738	197	11.6	7,047,419	213	12.2
CALIFORNIA	6,167,866	208	12.0	7,644,119	204	11.9

DOLLAR AND PER CENT INCREASE IN HIGHER EDUCATION OPERATING EXPENDITURES FROM STATE REVENUES

	1958 THROUGH 1968			1960 THROUGH 1970		
	DOLLARS	PER CENT	APPROXIMATE ANNUAL COMPOUND RATE	DOLLARS	PER CENT	APPROXIMATE ANNUAL COMPOUND RATE
ILLINOIS	$ 252,125	315	15.3	$ 341,715	333	15.7
INDIANA	201,287	293	14.7	263,644	318	15.4
IOWA	99,121	235	13.0	113,245	226	12.7
MICHIGAN	302,671	195	11.5	376,712	207	12.0
MINNESOTA	142,276	254	13.6	192,253	279	14.3
OHIO	228,955	318	15.4	320,261	383	16.9
WISCONSIN	203,932	471	18.4	260,204	460	18.2
NEW YORK	272,180	510	18.9	373,970	534	19.2
CALIFORNIA	478,741	198	11.6	486,440	138	9.1

(1) FY 1958 through 1968 is presented as well as FY 1960 through 1970, for Illinois experienced a large incremental increase in revenues due to the new state income tax in FY 1970. While this increase in revenues generated by the income tax creates a one time large fluctuation, the overall longterm annual compound rate of increase in general revenues during the 1960's has been at about 10% per year for Illinois.

SOURCE: "State Revenues and Expenditures for Selected States With An Emphasis On Education, 1958-1970," University Bureau of Institutional Research, University of Illinois, March, 1972," p. 1.

compound increases of 6%, 9%, and 12%. Total revenue for the period FY 1958 through 1971 was obtained from the U.S. Department of Commerce publication, "State Government Finances," and total state revenues for FY 1972 through 1974 were taken from the "Illinois State Budget in Brief, FY 1974." The projections forward from FY 1971 demonstrate that even though state revenues increased at a compound rate of approximately 10% per year during the decade preceding the introduction of the Illinois State income tax, state revenues have increased at only approximately 6% per year during the past three years. Table 7 indicates that a major and unlikely change in tax policies will have to take place in order to generate increased state revenues approaching anything like what might have been generated had the revenue increases experienced in the 1960's continued through the 1970's.

The various case assumptions applied to Version 1 and Version 2 of future funding policies for Urbana-Champaign generate a maximum 1980 general fund budget of $184,765,700 and a minimum 1980 budget of $128,355,000. Table 8 attempts to place these figures in perspective by comparing past and future Urbana-Champaign general fund budgets to past and future total state revenues (assuming future state revenues will grow at the rate of 6% per year).

If Urbana-Champaign is to maintain its general fund budget at the current 1.72% of total Illinois State revenue, or if in fact it is to increase its budget as a proportion of total state revenue, then (a) the State's fiscal condition must improve significantly (by an increase in revenues or in the taxes which generate those revenues), (b) Urbana-Champaign must be prepared to justify reallocation to its operating budget from other segments of the total higher education budget for the State of Illinois, or (c) Urbana-Champaign must generate increased income from sources other than State revenue (tuition).

TABLE 7

ILLINOIS REVENUE FY'58-'74 AND PROJECTED TO 1980

FISCAL YEAR	TOTAL REVENUE (THOUSANDS OF $)	ANNUAL PER CENT INCREASE	PROJECTED AT 6%	PROJECTED AT 9%	PROJECTED AT 12%
1958[1]	$1,111,286				
1959	1,197,430	7.75			
1960	1,452,061	21.26			
1961	1,540,551	6.09			
1962	1,674,031	8.66			
1963	1,846,977	10.33			
1964	1,938,034	4.93			
1965	2,116,048	9.18			
1966	2,270,260	7.28			
1967	2,397,620	5.60			
1968	2,889,620	20.52			
1969	3,268,185	13.10			
1970	4,347,716	33.03			
1971	5,000,989	15.02			
1972[2]	5,132,000	2.6	$5,301,000	$ 5,451,000	$ 5,601,100
1973	5,760,000	12.2	5,619,100	5,941,700	6,273,200
1974	5,973,000	3.7	5,956,300	6,476,400	7,026,000
1975[3]			6,313,600	7,059,300	7,869,200
1976			6,692,400	7,694,600	8,813,400
1977			7,094,000	8,387,100	9,871,100
1978			7,519,600	9,142,000	11,055,600
1979			7,970,800	9,964,700	12,382,300
1980			8,449,000	10,861,500	13,868,100
1981			8,956,000	11,839,100	15,532,300

(1) FY'58-'71 data taken from "State Revenues and Expenditures for Selected States With an Emphasis on Education, 1958-1970," University Bureau of Institutional Research, University of Illinois, March, 1972.

(2) FY'72-'74 data taken from "Illinois State Budget in Brief, FY 1974," p. A-5.

(3) FY'75-'80 data projected forward at 6%, 9%, and 12%.

TABLE 8

URBANA-CHAMPAIGN PAST AND PROJECTED OPERATING BUDGET
COMPARED TO PAST AND PROJECTED ILLINOIS STATE REVENUES

YEAR	URBANA-CHAMPAIGN OPERATING BUDGET	TOTAL ILLINOIS STATE REVENUE (THOUSANDS OF $)(1)	URBANA-CHAMPAIGN OPERATING BUDGET AS PER CENT OF TOTAL STATE REVENUE
1960	$ 39,847,900	$1,452,061	2.74
1965	58,860,100	2,116,048	2.78
1970	90,678,100	4,347,716	2.09
1971	97,034,325	5,000,989	1.94
1972	94,916,853	5,132,000	1.85
1973	98,933,002	5,760,000	1.72
*1975			
MINIMUM	108,407,500	6,313,600	1.72
MAXIMUM	130,943,900		2.07
*1980			
MINIMUM	128,355,000	8,449,000	1.52
MAXIMUM	184,765,700		2.19

(1) State revenues projected forward at rate of 6% per year.

* Projected

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VERSION 1
******* REPORT *******
CASE 1

	1971 1981 1991	1972 1982 1992	1973 1983 1993	1974 1984 1994	1975 1985 1995	1976 1986 1996	1977 1987 1997	1978 1988 1998	1979 1989 1999	1980 1990 2000
8 SALARIES + WAGES	81753.9	84819.3	87970.6	91242.0	94614.4	98087.9	100448.3	104013.7	107694.1	111422.0
	119321.8	114994.3	120936.5	127490.3	133334.3	138966.0	141758.8	146721.4	151898.6	157171.1
	162672.5	166869.0	171294.8	175957.9	180870.3	185997.8	190365.9	200984.7	214204.6	221705.7
10 EXPENSE + EQUIPMENT	15293.5	15738.9	16211.1	16697.4	17198.3	17714.3	18245.7	18793.1	19356.9	19937.6
	20535.7	21151.7	21786.3	22436.9	23113.0	23805.4	24510.6	25259.2	26011.6	26794.1
	27598.1	28426.1	29278.9	30157.2	31061.3	31993.8	32953.6	33942.2	34960.4	36009.2
12 SUB-TOTAL SW + EE	97034.4	100394.2	104787.9	107939.4	111812.7	116412.2	118742.3	122803.7	127051.0	131359.6
	135857.4	140089.9	142721.4	153299.1	157447.6	160772.4	166280.4	171977.6	177670.5	183965.0
	190270.7	195782.1	201537.7	213515.1	217732.3	224197.5	232919.5	240980.8	249164.8	257714.9
14 EQUIPMENT REPLACEMENT	0.0	1033.5	1137.9	1373.4	1113.1	1148.1	1187.4	1229.1	1270.1	1313.6
	1358.6	1405.1	1453.2	1503.0	1554.5	1607.7	1662.8	1719.8	1778.7	1839.7
	1902.7	1967.9	2035.4	2105.2	2177.3	2252.0	2329.2	2409.1	2491.7	2577.1
16 EQUIP REPLACE ACCUM	0.0	1003.5	2041.4	3114.8	4224.9	5373.1	6560.5	7788.6	9058.7	10372.3
	11730.8	13135.9	14589.1	16092.1	17646.5	19254.3	20917.1	22636.9	24415.6	26255.3
	28158.0	30125.9	32161.3	34266.4	36443.3	38695.7	41024.9	43434.0	45925.7	48502.8
18 NEW PROGRAMS	0.0	1905.3	1956.8	1610.1	1665.2	1722.2	1781.1	1842.1	1905.2	1970.4
	2037.9	2107.8	2179.8	2254.5	2331.7	2411.6	2494.2	2579.7	2668.1	2759.5
	2854.1	2951.9	3053.1	3157.7	3266.0	3378.0	3493.9	3613.8	3737.8	3865.7
20 NEW PROGRAMS ACCUM	0.0	1905.3	3862.1	5472.2	7137.4	8859.6	9640.7	11482.8	13388.0	15358.4
	17396.2	19703.0	21883.7	24138.2	26469.9	28881.5	31375.7	33955.4	36623.4	39382.9
	42237.0	45188.9	48241.9	51399.7	54665.6	58043.6	61537.4	65151.0	68888.8	72754.2
22 SUB-TOTAL SW+EE+ER+NP	97034.4	102843.0	106342.6	110022.0	113748.1	117542.5	121710.6	125479.4	130158.3	134443.6
	139253.9	144072.5	144954.9	154036.6	159330.5	164731.7	170437.4	176277.0	182317.3	188605.0
	195027.4	201711.3	208626.1	215777.3	223175.6	230827.5	238742.4	246923.5	255388.0	264157.8
24 SUB-TOTAL SW+EE+(ER+NP)A	97034.4	102843.0	108891.4	115126.4	121575.1	128244.6	135143.7	142278.1	149667.6	157330.2
	165184.5	173348.6	181794.7	190529.5	199563.9	208909.3	218573.3	228569.0	238913.8	249604.1
	260665.6	272136.9	283940.9	296181.1	308941.7	321938.9	335481.8	349491.6	363982.0	378972.0
26 OPER BUD=SW+EE+ER+NP ACC	97034.4	102843.0	107887.9	113085.0	118460.3	124019.8	129770.2	135717.6	141868.1	148227.8
	154812.3	161618.7	168658.7	175940.3	183471.8	191261.7	199318.9	207652.7	216272.8	225188.4
	234410.3	243948.9	253815.0	264019.9	274575.2	285493.1	296786.0	308460.9	320528.8	333046.3
65										
30 SALARIES + WAGES	0.0	0.0	86655.5	89688.4	92827.5	96079.5	99439.1	102917.5	106521.6	110249.9
	114108.6	118102.4	122236.0	126514.2	130942.2	135525.1	140268.5	145177.8	150258.1	155518.1
	160961.2	166594.8	172426.6	178460.5	184706.6	191171.3	197862.3	204787.4	211954.9	219373.3
32 EXPENSE + EQUIPMENT	0.0	0.0	12277.5	12545.8	13025.2	13415.9	13818.4	14233.0	14660.0	15099.7
	15552.7	16019.3	16499.9	16994.9	17504.7	18029.9	18570.8	19127.9	19701.7	20292.7
	20901.5	21528.6	22174.4	22839.6	23524.8	24230.6	24957.5	25706.2	26477.4	27271.7
34 SUB-TOTAL SW + EE	0.0	0.0	98933.0	102234.3	105852.7	109492.4	113257.5	117152.4	121181.6	125349.6
	129661.3	134121.7	138735.9	143509.1	148446.9	153554.0	158839.2	164305.7	169960.8	175810.9
	181862.8	188123.4	194600.1	201300.2	208231.4	215401.9	222819.7	230494.6	238435.3	246645.0
36 EQUIPMENT REPLACEMENT	0.0	0.0	0.0	1023.3	1058.5	1094.9	1132.6	1171.5	1211.8	1253.6
	1296.6	1341.2	1387.4	1435.1	1484.6	1535.5	1588.4	1643.1	1699.8	1758.1
	1818.6	1881.2	1946.0	2013.0	2082.3	2154.0	2228.2	2304.9	2384.3	2466.5
38 EQUIPMENT REPLACE ACCUM	0.0	0.0	0.0	1023.3	2081.8	3176.8	4309.4	5480.9	6692.7	7946.3
	9242.9	10584.0	11971.4	13406.5	14891.0	16426.5	18014.9	19658.0	21357.8	23115.9
	24934.3	26815.5	28761.5	30774.5	32856.8	35010.9	37239.1	39544.0	41928.3	44394.8
40 NEW PROGRAMS	0.0	0.0	0.0	1535.0	1587.6	1642.4	1699.9	1757.3	1817.7	1880.2
	1944.9	2011.8	2081.0	2152.6	2226.7	2303.3	2382.6	2464.6	2549.4	2637.2
	2727.9	2821.9	2919.2	3019.5	3123.9	3231.0	3342.3	3457.4	3576.5	3699.7
42 NEW PROGRAMS ACCUM	0.0	0.0	0.0	1535.0	3122.8	4765.2	6464.1	8221.3	10038.1	11919.3
	13864.2	15876.1	17957.1	20109.7	22336.4	24639.8	27022.4	29486.9	32036.3	34673.5
	37401.4	40223.3	43147.3	46161.8	49285.3	52516.3	55858.8	59316.0	62892.3	66592.2
44 SUB-TOTAL SW+EE+ER+NP	0.0	0.0	98933.0	103492.6	107439.1	111229.7	116649.2	120081.3	124211.1	128649.4
	132902.9	137474.6	142336.2	147936.8	152158.1	157543.9	163412.2	169813.4	176072.6	182510.1
	188409.3	194726.5	201646.1	208332.7	215437.2	222958.9	230963.0	239306.0	248139.1	257511.2
46 SUB-TOTAL SW+EE+(ER+NP)A	0.0	0.0	98933.0	103492.6	111057.4	117644.4	124031.3	130454.7	137917.4	146216.1
	152768.4	160591.9	168864.3	177625.3	186674.3	196271.3	206876.5	217459.6	227354.7	237550.0
	244198.5	253162.2	262623.9	272236.5	280373.5	302429.0	315917.4	329452.6	344252.1	359732.0
48 OPER BUD=SW+EE+ER+NP ACC	0.0	0.0	98933.0	103492.6	110034.3	115952.5	120954.2	126545.3	132737.5	139527.4
	146822.2	151337.0	156080.3	160951.9	167267.4	173713.4	180450.3	187435.7	194866.7	202340.5
	210382.8	218227.7	226684.4	234675.0	242944.3	251372.2	260026.5	268211.6	276870.1	285710.6

VERSION 1

******* REPORT ********

CASE 2

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
8 SALARIES + WAGES	81753.9	85932.8	89277.2	93294.5	97492.7	101879.9	106464.3	111255.1	116261.5	121493.7
	126963.2	132673.3	138643.5	144882.4	151401.9	158214.9	165334.4	172774.3	180548.0	188673.6
	197163.7	206035.9	215307.3	224996.0	235120.6	245700.8	256757.2	268311.0	280384.8	293001.8
10 EXPENSE + EQUIPMENT	15280.5	15891.7	16527.4	17188.5	17876.0	18591.1	19334.7	20108.1	20912.4	21748.9
	22614.9	23523.5	24464.6	25443.1	26460.9	27519.3	28620.1	29764.9	30955.5	32193.7
	33481.4	34820.7	36213.5	37662.1	39168.6	40735.3	42364.7	44059.3	45821.6	47654.5
12 SUB-TOTAL SW + EE	97034.4	101824.5	105804.5	110483.0	115368.7	120470.9	125799.0	131363.2	137173.9	143242.1
	149578.1	156197.0	163128.1	170325.5	177862.8	185734.2	193954.5	202539.2	211504.5	220866.7
	230645.1	240856.6	251520.9	262658.0	274289.1	286436.1	299121.8	312370.3	326205.4	340656.3
14 EQUIPMENT REPLACEMENT	0.0	1513.9	1547.1	1657.2	1730.5	1807.1	1887.0	1970.4	2057.6	2148.6
	2243.7	2343.0	2446.6	2554.9	2667.9	2786.0	2909.3	3038.1	3172.6	3313.0
	3459.7	3612.9	3772.8	3939.9	4114.3	4296.5	4486.8	4685.6	4893.1	5109.9
16 EQUIP REPLACE ACCUM	0.0	1514.9	3136.9	4764.2	6494.7	8301.8	10188.8	12159.2	14216.8	16365.4
	18609.1	20952.1	23398.7	25953.6	28621.5	31407.5	34316.9	37355.0	40527.6	43840.6
	47303.2	50915.1	54688.9	58625.7	62740.1	67036.6	71523.4	76209.0	81102.1	86211.8
18 NEW PROGRAMS	0.0	1013.2	1058.0	1104.8	1153.7	1204.7	1258.0	1313.6	1371.7	1432.4
	1495.8	1562.0	1631.1	1703.3	1778.6	1857.3	1939.5	2025.4	2115.0	2208.7
	2306.5	2408.6	2515.2	2626.6	2742.9	2864.4	2991.2	3123.7	3262.1	3406.6
20 NEW PROGRAMS ACCUM	0.0	1013.2	2071.3	3176.1	4329.8	5534.5	6792.5	8106.1	9477.9	10910.3
	12406.1	13968.1	15599.1	17302.4	19081.0	20938.4	22877.9	24903.3	27018.3	29227.0
	31533.5	33942.0	36457.2	39083.8	41826.7	44691.1	47682.3	50806.0	54068.1	57474.8
22 SUB-TOTAL SW+EE+ER+NP	97034.4	103657.6	108449.7	113245.1	118253.0	123462.6	128944.0	134647.3	140603.3	146823.1
	153318.6	160101.9	167185.8	174593.6	182309.4	190377.6	198803.4	207602.7	216792.1	226388.8
	236411.3	246878.0	257808.9	269224.5	281140.4	293597.0	306608.9	320187.5	334351.6	349172.7
24 SUB-TOTAL SW+EE+(ER+NP)A	97034.4	103857.6	110982.8	118423.3	126193.3	134307.2	142780.3	151628.5	160868.6	170517.8
	180594.3	191117.1	202105.9	213591.5	225566.4	238080.1	251149.3	264797.5	279050.4	293934.8
	309478.8	325711.7	342664.0	360367.6	378855.3	398163.8	418327.6	439385.3	461376.6	484342.9
26 OPER BUD+SW+EE+ER+NP ACC	97034.4	103857.6	109462.9	115316.4	121429.1	127812.4	134478.5	141439.8	148709.4	156301.0
	164228.9	172508.0	181152.8	190182.9	199611.8	209458.6	219741.7	230480.6	241695.4	253407.3
	265638.3	278411.5	291750.9	305681.7	320230.2	335423.7	351291.0	367861.8	385167.6	403240.8
65										
30 SALARIES + WAGES	0.0	0.0	86655.5	90554.9	94629.8	98888.1	103337.9	107988.1	112847.4	117925.5
	123232.0	128777.3	134572.2	140627.8	146956.0	153568.9	160479.5	167700.8	175247.1	183133.1
	191373.9	199985.6	208984.8	218388.9	228216.2	238485.7	249217.4	260432.0	272151.2	284397.7
32 EXPENSE + EQUIPMENT	0.0	0.0	12277.5	12768.6	13279.3	13810.5	14362.9	14937.5	15535.0	16156.3
	16802.6	17474.7	18173.7	18900.6	19656.7	20442.9	21260.6	22111.1	22995.5	23915.3
	24871.9	25866.8	26901.5	27977.6	29096.7	30260.5	31470.9	32729.8	34039.0	35400.5
34 SUB-TOTAL SW + EE	0.0	0.0	98933.0	103323.5	107909.2	112698.6	117700.9	122925.5	128382.4	134081.8
	140034.6	146252.0	152745.9	159528.5	166612.6	174011.8	181740.0	189811.8	198242.7	207048.4
	216245.9	225852.4	235886.3	246366.5	257312.9	268746.2	280688.3	293161.7	306190.1	319798.3
36 EQUIPMENT REPLACEMENT	0.0	0.0	0.0	1549.9	1618.6	1690.5	1765.5	1843.9	1925.7	2011.0
	2100.5	2193.8	2291.2	2392.9	2499.2	2610.2	2726.1	2847.2	2973.6	3105.7
	3243.7	3387.8	3538.3	3695.5	3859.7	4031.2	4210.3	4397.4	4592.9	4797.0
38 EQUIPMENT REPLACE ACCUM	0.0	0.0	0.0	1549.9	3168.5	4859.0	6624.5	8468.4	10394.1	12405.1
	14505.8	16699.6	18990.8	21383.7	23882.9	26493.1	29219.2	32066.4	35040.0	38145.7
	41389.4	44777.2	48315.5	52011.0	55870.7	59901.9	64112.2	68509.7	73102.5	77899.5
40 NEW PROGRAMS	0.0	0.0	0.0	1033.2	1079.1	1127.0	1177.0	1229.3	1283.8	1340.7
	1400.3	1462.5	1527.5	1595.3	1666.1	1740.1	1817.4	1898.1	1982.4	2070.6
	2162.5	2258.5	2358.9	2463.7	2573.1	2687.5	2806.9	2931.6	3061.9	3198.0
42 NEW PROGRAMS ACCUM	0.0	0.0	0.0	1033.2	2112.3	3239.3	4416.3	5645.6	6929.4	8270.2
	9670.6	11133.1	12660.5	14255.8	15922.0	17662.1	19479.5	21377.6	23360.0	25430.6
	27593.0	29851.5	32210.3	34674.0	37247.1	39934.6	42741.5	45670.1	48725.0	51923.0
44 SUB-TOTAL SW+EE+ER+NP	0.0	0.0	98933.0	105906.6	111606.3	115516.1	120443.4	125998.7	131591.9	137433.0
	143535.5	149914.4	156586.6	163516.7	170778.0	178362.1	186283.5	194557.1	203194.7	212224.7
	221652.0	231498.7	241783.4	252525.6	263745.7	275464.9	287705.5	300490.6	313844.9	327793.2
46 SUB-TOTAL SW+EE+(ER+NP)A	0.0	0.0	98933.0	105906.6	113190.0	120796.9	128741.7	137039.5	145705.9	154757.4
	164211.0	174084.3	184397.2	195168.1	206417.5	218167.0	230436.7	243255.8	256644.3	270624.7
	285223.3	300461.1	316412.1	333101.1	350549.7	368782.8	387842.1	407744.5	428527.6	450230.7
48 OPER BUD+SW+EE+ER+NP ACC	0.0	0.0	98933.0	105906.6	111640.1	117624.4	123882.7	130415.0	137237.5	144363.3
	151805.7	159574.9	167687.6	176177.2	185033.4	194284.0	203948.5	214038.4	224576.8	235584.7
	247082.5	259091.7	271634.9	284736.0	298414.7	312712.1	327640.1	343232.3	359519.0	376528.2

VERSION 1

******* REPORT ********

CASE 3

		1971 1981 1991	1972 1982 1992	1973 1983 1993	1974 1984 1994	1975 1985 1995	1976 1986 1996	1977 1987 1997	1978 1988 1998	1979 1989 1999	1980 1990 2000
8	SALARIES + WAGES	81751.9 139646.6 238535.1	86250.3 147327.1 251694.4	91024.0 155480.0 265575.2	96098.9 164176.9 280547.3	101578.5 172497.2 295502.9	106648.7 181512.0 311794.9	112725.4 192580.3 328901.2	118925.2 203140.1 346890.6	125466.0 214312.7 366074.8	132366.6 226089.8 386268.7
10	EXPENSE + EQUIPMENT	15280.5 24890.1 40543.1	16044.5 26134.6 42570.1	16846.7 27441.3 44678.7	17689.1 28813.4 46933.6	18573.5 30254.0 49230.3	19502.1 31768.7 51744.3	20477.2 33356.0 54331.4	21501.1 35022.8 57048.0	22576.1 36773.9 59903.3	23704.9 38612.5 62899.3
12	SUB-TOTAL SW + EE	97034.4 164536.8 279078.2	102294.8 173461.7 294224.7	107870.7 182971.3 310194.0	113787.7 192791.9 327038.9	119952.0 203251.3 344782.7	126350.9 214278.7 363499.2	133202.6 225905.0 383232.7	140426.3 238162.9 404038.5	148042.1 251086.6 425975.1	156071.5 264702.3 449168.0
14	EQUIPMENT REPLACEMENT	0.0 3290.7 5581.6	2045.3 3469.2 5884.5	2156.8 3657.4 6203.9	2273.8 3855.8 6540.6	2397.0 4065.0 6895.7	2527.0 4285.6 7270.0	2664.1 4518.1 7664.7	2809.5 4763.3 8080.8	2963.8 5021.7 8519.5	3127.4 5296.2 8982.1
16	EQUIP REPLACE ACCUM	0.0 26246.1 70758.1	2045.9 29715.3 76642.6	4202.7 33372.8 82846.5	6476.5 37228.6 89387.1	8873.5 41293.6 96282.8	11400.5 45579.2 103552.7	14064.6 50097.3 111217.4	16873.1 54860.6 119298.2	19833.9 59882.3 127817.7	22955.4 65178.5 136799.7
18	NEW PROGRAMS	0.0 822.7 1395.4	511.5 867.3 1471.1	539.2 914.4 1551.0	568.4 964.0 1635.2	599.3 1016.3 1723.9	631.8 1071.4 1817.5	666.0 1129.5 1916.2	702.1 1190.8 2020.2	740.2 1255.4 2129.9	780.4 1323.6 2245.5
20	NEW PROGRAMS ACCUM	0.0 6561.5 17689.5	511.5 7428.8 19160.7	1050.7 8343.2 20711.8	1619.1 9307.2 22346.8	2218.4 10323.4 24070.7	2850.1 11394.8 25888.2	3516.1 12524.3 27804.3	4218.2 13715.1 29824.5	4958.5 14970.6 31954.4	5738.8 16294.1 34199.9
22	SUB-TOTAL SW+EE+ER+NP	97034.4 168650.2 286055.2	104852.2 177798.3 301540.3	110536.8 187443.1 317948.3	116529.9 197611.7 335226.7	122848.3 208332.6 353402.3	129509.7 219635.7 372586.6	136532.7 231552.7 392813.5	143936.9 244117.0 414139.5	151743.2 257368.7 436624.5	159973.2 271330.1 460331.6
24	SUB-TOTAL SW+EE+(ER+NP)A	97034.4 197344.4 367525.9	104852.2 210605.9 390027.9	113094.1 224587.3 413762.1	121783.3 239327.7 438764.8	130943.9 254868.3 465136.2	140601.6 271252.7 492940.1	150783.3 288526.7 522254.4	161517.6 306738.6 553161.2	172834.5 325939.5 585747.2	184765.7 346183.0 620103.7
26	OPER BUD=SW+EE+ER+NP ACC	97034.4 174389.0 302349.3	104852.2 184359.8 319269.8	111048.2 194871.9 337109.5	117580.6 205954.9 355918.3	124457.4 217639.7 375749.1	131728.0 229959.1 396657.8	139382.8 242947.5 418701.7	147453.1 256641.3 441943.8	155961.4 271078.9 466449.1	164931.7 286300.7 492286.0
65											
30	SALARIES + WAGES	0.0 132988.4 227162.0	0.0 140302.6 239655.7	86655.5 148019.2 252836.6	91421.5 156160.2 266742.5	96449.5 164748.9 281413.1	101754.3 173810.0 296840.7	107350.7 183369.4 313219.5	113254.9 193456.6 330446.3	119483.9 204094.5 348620.7	126055.4 215319.5 367794.6
32	EXPENSE + EQUIPMENT	0.0 18139.4 29546.9	0.0 19046.3 31024.2	12277.5 19998.6 32575.4	12891.4 20998.5 34204.1	13535.9 22048.4 35914.3	14212.7 23150.8 37710.0	14923.3 24308.4 39595.5	15669.5 25523.8 41575.2	16453.0 26799.9 43653.9	17275.6 28139.9 45836.6
34	SUB-TOTAL SW + EE	0.0 151127.7 256708.8	0.0 159349.0 270679.3	98933.0 168017.8 285412.0	104312.9 177158.7 300946.6	109985.5 186797.3 317327.5	115967.0 196960.8 334550.7	122274.0 207677.7 352814.9	128924.4 218979.3 372021.6	135936.8 230894.4 392274.6	143331.0 243459.4 413631.2
36	EQUIPMENT REPLACEMENT	0.0 3022.6 5134.2	0.0 3187.0 5413.6	0.0 3353.4 5706.2	2086.3 3543.2 6018.9	2199.7 3735.4 6346.5	2319.3 3939.2 6692.0	2445.5 4153.6 7056.3	2578.5 4379.6 7440.4	2718.7 4617.9 7845.5	2866.6 4869.2 8272.6
38	EQUIPMENT REPLACE ACCUM	0.0 20237.2 61157.2	0.0 23424.2 66570.8	0.0 26778.6 72276.1	2086.3 30321.7 78294.0	4286.1 34057.3 84644.5	6605.3 38002.9 91336.6	9050.8 42156.4 98392.3	11629.3 46535.9 105833.3	14343.0 51153.9 113678.8	17214.6 56023.1 121951.4
40	NEW PROGRAMS	0.0 755.6 1283.5	0.0 796.7 1353.4	0.0 840.1 1427.1	521.6 885.8 1504.7	549.9 934.0 1586.5	579.8 984.8 1673.0	611.4 1038.4 1764.1	644.6 1094.9 1860.1	679.7 1154.5 1961.6	716.7 1217.3 2068.2
42	NEW PROGRAMS ACCUM	0.0 5059.3 15289.3	0.0 5856.0 16642.7	0.0 6696.1 18069.8	521.6 7581.9 19574.5	1071.5 8515.9 21161.1	1651.3 9500.7 22834.1	2262.7 10539.1 24598.2	2907.3 11634.0 26458.3	3587.0 12788.5 28419.7	4303.7 14005.8 30487.9
44	SUB-TOTAL SW+EE+ER+NP	0.0 154905.9 263126.6	0.0 163232.7 277446.9	98933.0 172213.8 292547.9	106920.7 181587.7 308470.3	112735.2 191467.2 325260.5	118966.2 201884.8 342989.7	125330.9 212869.7 361835.3	132147.5 224452.8 381322.1	139335.2 236666.8 402081.5	146914.3 249545.9 423972.0
46	SUB-TOTAL SW+EE+(ER+NP)A	0.0 176424.2 343155.4	0.0 188629.2 358873.5	98933.0 201498.5 375750.9	106920.7 215068.3 394419.1	115343.0 229376.9 414133.1	124223.6 244464.4 433771.4	133587.5 260373.3 454206.0	143461.0 277144.3 475206.0	153871.8 294830.7 504813.2	164849.3 313484.8 534273.1	506970.5
48	OPER BUD=SW+EE+ER+NP ACC	0.0 159209.6 277132.3	0.0 168392.0 292736.2	98933.0 178074.2 309110.0	106920.7 188282.8 326560.0	115256.7 199044.2 344835.1	119947.7 210400.7 364129.4	126982.2 222370.4 384459.5	134413.2 234981.9 405930.3	142262.6 248300.7 428599.8	150561.3 262394.4 452391.7

VERSION 1

******* REPORT ********

CASE 4

		1971 1981 1991	1972 1982 1992	1973 1983 1993	1974 1984 1994	1975 1985 1995	1976 1986 1996	1977 1987 1997	1978 1988 1998	1979 1989 1999	1980 1990 2000
8	SALARIES + WAGES	81753.9	86250.3	90994.0	95998.6	101274.5	106848.7	112728.4	118928.2	125466.0	132366.5
		139646.6	147327.1	155430.0	163978.5	172997.2	182512.0	192550.0	203140.1	214312.7	226099.8
		238535.1	251654.4	265495.2	280097.3	295502.5	311754.9	328931.2	346940.6	366074.8	386208.7
10	EXPENSE + EQUIPMENT	15260.5	15891.7	16527.4	17138.5	17676.0	18501.1	19334.7	20103.1	20912.4	21746.9
		22618.9	23523.6	24464.6	25443.1	26460.9	27519.3	28620.1	29764.9	30955.5	32193.7
		33481.4	34820.7	36213.5	37662.1	39168.5	40735.3	42364.7	44059.3	45821.6	47654.5
12	SUB-TOTAL SW + EE	97034.4	102142.0	107521.4	113187.1	118954.5	125434.8	132060.1	139033.3	146378.4	154115.4
		162265.5	170850.7	179894.5	189421.7	199458.1	210031.3	221170.1	232905.0	245268.2	258293.5
		272016.6	286475.1	301708.7	317759.3	334671.0	352490.2	371286.9	391049.8	411896.5	433863.2
14	EQUIPMENT REPLACEMENT	0.0	1021.4	1075.2	1131.9	1191.5	1254.4	1320.6	1390.3	1463.8	1541.2
		1622.7	1708.5	1799.9	1894.2	1994.6	2100.3	2211.7	2329.1	2452.7	2582.9
		2720.2	2864.8	3017.1	3177.6	3346.7	3524.9	3712.7	3910.5	4119.3	4338.6
16	EQUIP REPLACE ACCUM	0.0	1021.4	2096.6	3228.5	4420.1	5674.4	6995.0	8385.4	9849.2	11390.3
		13013.0	14721.5	16520.4	18414.6	20409.2	22509.5	24721.2	27050.3	29503.0	32085.9
		34806.1	37670.8	40687.9	43865.5	47212.2	50737.1	54449.8	58359.3	62479.2	66817.9
18	NEW PROGRAMS	0.0	510.7	537.6	565.9	595.8	627.2	660.3	695.2	731.9	770.6
		811.3	854.3	899.5	947.1	997.3	1050.2	1105.9	1164.5	1226.3	1291.5
		1360.1	1432.4	1508.5	1588.6	1673.4	1762.5	1856.3	1955.2	2059.5	2169.3
20	NEW PROGRAMS ACCUM	0.0	510.7	1048.3	1614.2	2210.0	2837.2	3497.5	4192.7	4924.6	5695.2
		6506.5	7360.7	8260.2	9207.3	10204.6	11254.8	12360.6	13525.1	14751.5	16043.0
		17403.0	18835.4	20344.0	21932.8	23606.1	25368.6	27224.9	29180.1	31239.6	33408.9
22	SUB-TOTAL SW+EE+ER+NP	97034.4	103674.2	109134.2	114884.9	120941.8	127321.4	134041.0	141118.8	148574.1	156427.2
		164699.5	173413.5	182593.0	192263.0	202450.0	213181.7	224487.6	236378.6	248947.2	262167.9
		276096.8	290772.2	306234.4	322525.7	339691.1	357777.5	376834.9	396919.6	418074.9	440371.2
24	SUB-TOTAL SW+EE+(ER+NP)A	97034.4	103674.2	110646.4	118029.9	125784.6	133961.5	142552.6	151611.3	161152.2	171200.9
		181784.9	192932.9	204675.2	217043.6	230071.9	243795.6	258251.9	273480.5	289522.6	306422.3
		324225.7	342981.3	362740.6	383557.6	405489.3	428595.9	452940.6	478590.3	505615.3	534090.0
25	OPER BUD=SW+EE+ER+NP ACC	97034.4	103674.2	109644.9	115933.2	122556.1	129531.4	136878.2	144616.3	152766.8	161351.8
		170394.6	179920.0	189952.7	200523.2	211657.3	223388.4	235742.4	248759.2	262472.4	276919.4
		292139.8	306175.2	325069.8	342869.7	361623.8	381383.6	402203.5	424140.5	447255.1	471610.8
65											
30	SALARIES + WAGES	0.0	0.0	86555.5	91421.5	96449.6	101754.3	107350.7	113254.9	119483.9	126055.4
		132988.4	140302.6	148019.2	156160.2	164748.9	173810.0	183369.4	193454.6	204094.5	215319.5
		227162.0	239655.7	252836.6	266742.5	281413.1	296890.7	313219.5	330446.3	348620.7	367794.6
32	EXPENSE + EQUIPMENT	0.0	0.0	12277.5	12768.6	13279.3	13810.5	14362.9	14937.5	15535.0	16156.3
		16802.6	17474.7	18173.7	18900.6	19656.7	20442.9	21260.6	22111.1	22995.5	23915.3
		24871.9	25866.8	26901.5	27977.6	29096.7	30260.5	31470.9	32729.8	34039.0	35400.5
34	SUB-TOTAL SW + EE	0.0	0.0	99822.3	105232.0	110826.3	116720.5	122930.8	129474.3	136369.0	143633.9
		151288.9	159355.1	167854.8	176811.4	186249.6	196195.4	206676.3	217721.3	229360.9	241627.2
		254554.2	268177.3	282515.5	297567.2	313614.3	330422.7	348137.3	366907.0	386896.2	407267.1
36	EQUIPMENT REPLACEMENT	0.0	0.0	980.3	1041.9	1097.3	1155.4	1217.1	1281.9	1350.2	1422.1
		1497.9	1577.8	1661.9	1750.6	1844.1	1942.5	2046.3	2155.7	2270.9	2392.3
		2520.3	2655.2	2797.4	2947.2	3105.1	3271.5	3446.9	3631.8	3826.6	4032.0
38	EQUIPMENT REPLACE ACCUM	0.0	0.0	980.3	2021.2	3118.5	4284.2	5501.3	6783.2	8133.4	9555.5
		11053.4	12631.2	14293.1	16043.8	17887.8	19830.3	21876.6	24032.3	26303.2	28695.5
		31215.9	33871.1	36668.5	39615.7	42720.8	45992.3	49439.2	53071.0	56897.6	60929.5
40	NEW PROGRAMS	0.0	0.0	0.0	526.2	554.1	583.6	614.7	647.4	681.8	718.2
		756.4	795.8	838.7	884.1	931.2	981.0	1033.4	1088.6	1146.8	1208.1
		1272.8	1340.3	1412.7	1488.3	1568.1	1652.1	1740.7	1834.0	1932.4	2036.1
42	NEW PROGRAMS ACCUM	0.0	0.0	0.0	526.2	1080.3	1663.9	2278.5	2925.9	3607.8	4325.9
		5082.4	5879.2	6718.4	7602.5	8533.7	9514.7	10548.1	11636.7	12783.5	13991.6
		15264.4	16605.3	18018.0	19506.3	21074.4	22726.5	24467.2	26301.2	28233.7	30269.9
44	SUB-TOTAL SW+EE+ER+NP	0.0	0.0	100711.7	105800.1	112477.7	118459.7	124762.6	131403.6	138401.0	145774.2
		153543.2	161729.7	170356.0	179445.1	189024.9	199114.9	209736.0	220965.6	232778.6	245227.7
		258347.4	272173.9	286749.6	302102.8	318246.1	335246.3	353246.9	372273.7	392245.3	413295.1
46	SUB-TOTAL SW+EE+(ER+NP)A	0.0	0.0	100911.7	107783.4	115035.1	122668.5	130710.6	139183.4	148110.2	157515.3
		167424.7	177865.5	188866.4	200457.6	212671.1	225540.5	239101.1	253393.3	268447.6	284314.4
		301034.5	318864.2	337722.0	356749.2	377410.1	399141.5	422043.7	446193.1	471617.5	498426.4
48	OPER BUD=SW+EE+ER+NP ACC	0.0	0.0	100911.7	106800.1	113003.9	119540.0	126426.5	133682.1	141327.0	149381.9
		157869.2	166812.1	176235.2	186166.5	196627.4	207652.6	219270.7	231513.7	244416.3	258011.2
		272339.0	287438.3	303350.9	320121.7	337794.4	356420.7	376041.4	396740.9	418566.5	441628.8

APPENDIX 2

UNIVERSITY OF ILLINOIS
MODEL FOR AGGREGATE PLANNING

VERSION 2
******* REPORT ********

CASE 1

		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
		1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
8	SALARIES + WAGES	81753.9	84619.3	87576.8	90642.0	93814.4	97097.9	100496.3	104013.7	107654.1	111422.0
		115321.8	119358.0	123535.5	127856.3	132334.3	136966.0	141759.8	146721.4	151856.6	157171.5
		162672.5	168366.0	174258.8	180357.9	186670.3	193203.8	199965.9	206964.7	214208.4	221705.7
10	EXPENSE + EQUIPMENT	15280.5	15738.9	16211.1	16697.4	17198.3	17714.3	18245.7	18793.1	19356.8	19937.5
		20535.7	21151.7	21786.3	22439.9	23113.0	23806.4	24520.6	25256.2	26013.9	26794.3
		27598.1	28426.1	29278.9	30157.2	31061.9	31993.8	32953.6	33942.2	34960.4	36009.2
12	SUB-TOTAL SW + EE	97034.4	100354.2	103787.9	107339.4	111012.7	114812.2	118742.0	122806.7	127011.0	131359.6
		135857.4	140509.8	145321.8	150296.1	155447.4	160772.4	166280.4	171977.6	177870.5	183965.9
		190270.7	196792.1	203537.7	210515.1	217732.3	225197.5	232919.5	240906.8	249168.8	257714.9
52	EQUIPMENT REPLACEMENT	0.0	970.3	999.4	1029.4	1060.3	1092.1	1124.8	1158.6	1193.3	1229.1
		1266.0	1304.0	1343.1	1383.4	1424.9	1467.7	1511.7	1557.0	1603.8	1651.9
		1701.4	1752.5	1805.0	1859.2	1915.0	1972.4	2031.6	2092.5	2155.3	2220.0
54	NEW PROGRAMS	0.0	1455.5	1506.4	1559.2	1613.7	1670.2	1728.7	1789.2	1851.8	1916.6
		1983.7	2053.1	2125.0	2199.4	2276.3	2356.0	2438.5	2523.8	2612.1	2703.6
		2798.2	2896.1	2997.5	3102.4	3211.0	3323.4	3439.7	3560.1	3684.7	3813.6
56	OPER BUD=SW+EE+ER+NP	97034.4	102780.0	106293.7	109927.9	113686.8	117574.5	121595.5	125754.5	130056.1	134505.3
		139107.2	143866.9	148789.9	153881.9	159148.6	164596.1	170230.6	176056.4	182086.4	188321.3
		194770.3	201440.7	208340.2	215476.6	222858.2	230493.3	238390.7	246559.4	255008.8	263748.5
65											
30	SALARIES + WAGES	0.0	0.0	85555.5	89688.4	92827.5	96076.5	99439.1	102919.5	106521.6	110248.9
		114108.6	118102.4	122236.0	126514.2	130942.2	135525.1	140268.5	145177.9	150259.1	155518.1
		160961.2	166594.8	172425.6	178460.5	184706.6	191171.3	197862.3	204787.4	211954.9	219373.3
32	EXPENSE + EQUIPMENT	0.0	0.0	12277.5	12645.8	13025.2	13415.9	13818.4	14233.0	14660.0	15099.7
		15552.7	16019.3	16499.9	16994.9	17504.7	18029.9	18570.8	19127.9	19701.7	20292.7
		20901.5	21528.4	22174.4	22839.6	23524.8	24230.6	24957.5	25705.2	26477.4	27271.7
34	SUB-TOTAL SW + EE	0.0	0.0	98833.0	102334.3	105852.7	109492.4	113257.5	117152.4	121181.6	125349.6
		129661.3	134121.7	138735.9	143509.1	148446.9	153555.0	158839.2	164305.7	169960.8	175810.9
		181862.8	188123.4	194600.1	201300.2	208231.4	215401.9	222819.7	230493.6	238432.3	246645.0
60	EQUIPMENT REPLACEMENT	0.0	0.0	0.0	989.3	1019.3	1049.5	1081.0	1113.5	1146.9	1181.3
		1216.7	1253.2	1290.8	1329.5	1369.4	1410.5	1452.8	1496.4	1541.3	1587.5
		1635.2	1684.2	1734.7	1786.8	1840.4	1895.6	1952.5	2011.0	2071.4	2133.5
62	NEW PROGRAMS	0.0	0.0	0.0	1483.9	1535.8	1589.6	1645.2	1702.8	1762.4	1824.1
		1887.9	1954.0	2022.4	2093.2	2166.4	2242.3	2320.7	2402.0	2486.0	2573.1
		2663.1	2756.3	2852.8	2952.6	3056.3	3162.9	3273.6	3388.2	3506.8	3629.5
64	OPER BUD=SW+EE+ER+NP	0.0	0.0	98933.0	104807.5	108407.5	112131.5	115983.8	119968.7	124090.9	128355.0
		132766.0	137328.9	142044.1	146931.6	151982.8	157207.8	162612.8	168204.1	173988.1	179971.5
		186161.0	192563.9	199187.6	206039.6	213127.5	220460.4	228045.8	235892.9	244010.5	252408.1

VERSION 2
******* R E P O R T ********

CASE 2

		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
		1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
8	SALARIES + WAGES	81753.9	85432.8	89277.2	93294.5	97492.7	101879.8	106464.3	111255.1	116261.5	121493.2
		126960.2	132673.3	138643.5	144882.4	151401.9	158214.9	165334.4	172774.3	180549.0	188673.6
		197163.7	206035.9	215307.3	224996.0	235123.6	245700.8	256757.2	268311.0	280384.8	293001.8
10	EXPENSE + EQUIPMENT	15280.5	15891.7	16527.4	17188.5	17876.0	18591.1	19334.7	20108.1	20912.4	21748.9
		22618.9	23523.6	24464.6	25443.1	26460.9	27519.3	28620.1	29764.9	30955.5	32193.7
		33481.4	34820.7	36213.5	37662.1	39168.5	40735.3	42364.7	44059.3	45821.6	47654.5
12	SUB-TOTAL SW + EE	97034.4	101324.5	105804.5	110483.0	115368.7	120470.9	125799.0	131363.2	137173.9	143242.1
		149579.1	156197.0	163108.1	170325.5	177862.8	185734.2	193954.5	202539.2	211504.5	220867.3
		230645.1	240856.6	251520.9	262658.0	274289.1	286436.1	299121.8	312370.3	326206.4	340656.3
52	EQUIPMENT REPLACEMENT	0.0	1455.5	1513.7	1574.3	1637.2	1702.7	1770.8	1841.7	1915.3	1992.0
		2071.6	2154.5	2240.7	2330.3	2423.5	2520.5	2621.3	2726.1	2835.2	2948.6
		3066.5	3189.2	3316.7	3449.4	3587.4	3730.9	3880.1	4035.3	4196.7	4364.6
54	NEW PROGRAMS	0.0	970.3	1014.0	1059.6	1107.3	1157.1	1209.2	1263.6	1320.4	1379.9
		1441.9	1506.8	1574.6	1645.5	1719.5	1796.9	1877.8	1962.3	2050.6	2142.9
		2239.3	2340.0	2445.3	2555.4	2670.4	2790.5	2916.1	3047.3	3184.5	3327.8
56	OPER BUD=SW+EE+ER+NP	97034.4	103750.3	108332.2	113116.9	118113.3	123330.7	128779.0	134468.4	140409.7	146613.9
		153092.7	159858.3	166923.4	174301.3	182005.9	190051.6	198453.6	207227.6	216390.2	225958.7
		235950.9	246385.8	257283.0	268662.8	280546.9	292957.5	305918.1	319452.9	333587.6	348348.7
65											
30	SALARIES + WAGES	0.0	0.0	86655.5	90554.9	94629.3	98898.1	103337.9	107984.1	112847.4	117925.5
		123232.0	128777.3	134572.2	140627.8	146955.0	153568.9	160479.3	167703.8	175247.1	183133.1
		191373.9	199985.6	208984.8	218388.9	228216.2	238485.7	249217.4	260432.0	272151.2	284397.7
32	EXPENSE + EQUIPMENT	0.0	0.0	12277.5	12768.6	13279.3	13810.5	14362.9	14937.5	15535.0	16156.3
		16802.6	17474.7	18173.7	18900.6	19656.7	20442.9	21260.6	22111.1	22995.5	23915.3
		24871.9	25866.8	26901.5	27977.6	29096.7	30260.5	31470.9	32729.8	34039.0	35400.5
34	SUB-TOTAL SW + EE	0.0	0.0	98933.0	103323.5	107909.2	112698.6	117700.9	122925.5	128382.4	134081.8
		140034.6	146252.0	152745.9	159528.5	166612.6	174011.8	181740.0	189811.8	198242.7	207048.4
		216245.9	225852.4	235886.3	246366.5	257312.9	268746.3	280688.3	293161.7	306190.1	319798.3
60	EQUIPMENT REPLACEMENT	0.0	0.0	0.0	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
		1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
		1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9	1483.9
62	NEW PROGRAMS	0.0	0.0	0.0	989.3	1033.9	1080.3	1129.0	1179.8	1232.8	1288.3
		1346.3	1406.9	1470.2	1536.3	1605.5	1677.7	1753.2	1832.1	1914.6	2000.7
		2090.7	2184.9	2283.1	2385.9	2493.2	2605.4	2722.7	2845.2	2973.2	3107.0
64	OPER BUD=SW+EE+ER+NP	0.0	0.0	98933.0	105796.7	110426.9	115262.8	120313.7	125589.2	131099.1	136854.0
		142864.8	149142.8	155700.0	162548.7	169702.3	177173.4	184977.1	193127.8	201641.1	210533.0
		219820.5	229521.1	239653.3	250236.2	261290.3	272835.6	284894.9	297490.8	310647.2	324389.2

VERSION 2
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CASE 3

		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
		1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
8	SALARIES + WAGES	81753.9	86250.3	90934.0	95938.6	101278.5	106848.7	112725.4	118925.2	125466.0	132366.5
		139646.6	147327.1	155430.0	163978.5	172997.2	182512.0	192550.0	203140.1	214312.7	226099.8
		238535.1	251654.4	265435.2	280097.3	295502.5	311754.9	328901.2	346990.6	366074.8	386208.7
10	EXPENSE + EQUIPMENT	15280.5	16044.5	16846.7	17689.1	18573.5	19502.1	20477.2	21501.1	22576.1	23704.9
		24840.1	26134.6	27441.3	28813.4	30254.0	31766.7	33355.0	35022.8	36773.9	38612.5
		40543.1	42570.3	44698.7	46933.6	49290.3	51744.3	54331.4	57048.0	59900.3	62895.3
12	SUB-TOTAL SW + EE	97034.4	102294.8	107840.7	113687.7	119852.0	126350.9	133202.6	140426.3	148042.1	156071.5
		164536.8	173461.7	182871.3	192791.9	203251.3	214278.7	225905.0	238162.9	251086.6	264712.3
		279378.2	294224.7	310134.0	327030.9	344782.7	363499.2	383232.7	404038.5	425975.1	449104.0
52	EQUIPMENT REPLACEMENT	0.0	1940.6	2037.6	2139.5	2246.5	2359.8	2476.7	2600.6	2730.6	2867.1
		3010.5	3161.0	3319.1	3485.0	3659.3	3842.2	4034.3	4236.0	4447.8	4670.2
		4903.7	5148.9	5406.4	5676.7	5960.5	6258.5	6571.4	6900.0	7245.0	7607.2
54	NEW PROGRAMS	0.0	485.2	511.9	540.0	569.7	601.1	634.1	669.0	705.8	744.6
		785.6	828.8	874.4	922.5	973.2	1026.7	1083.2	1142.8	1205.6	1271.9
		1341.9	1415.7	1493.5	1575.7	1662.3	1753.8	1850.2	1952.0	2059.3	2172.6
56	OPER BUD=SW+EE+ER+NP	97034.4	104720.6	110390.3	116367.2	122668.2	129310.8	136313.5	143695.9	151478.5	159683.2
		168332.8	177451.5	187064.8	197199.4	207883.7	219147.6	231022.6	243541.7	256740.0	270654.5
		285323.9	300789.2	317093.9	334283.3	352405.6	371511.5	391654.3	412890.5	435279.5	458883.9
65											
30	SALARIES + WAGES	0.0	0.0	86655.5	91421.5	96449.6	101754.3	107350.7	113254.9	119483.9	126055.4
		132988.4	140302.6	148019.2	156160.2	164748.9	173810.0	183369.4	193454.6	204094.5	215319.5
		227162.0	239655.7	252836.6	266742.5	281413.1	296890.7	313219.5	330446.3	348623.7	367794.6
32	EXPENSE + EQUIPMENT	0.0	0.0	12277.5	12891.4	13535.9	14212.7	14923.3	15669.5	16453.0	17275.6
		18139.4	19046.3	19998.6	20998.5	22048.4	23150.8	24308.4	25523.8	26799.9	28139.9
		29546.9	31024.2	32575.4	34204.1	35914.3	37710.0	39595.5	41575.2	43653.9	45836.6
34	SUB-TOTAL SW + EE	0.0	0.0	98933.0	104312.9	109985.5	115967.0	122274.0	128924.4	135936.8	143331.0
		151127.7	159349.0	168017.8	177158.7	186797.3	196960.8	207677.7	218977.3	230894.4	243459.4
		256708.8	270679.9	285412.0	300946.6	317327.5	334600.7	352814.9	372021.6	392274.6	413631.2
60	EQUIPMENT REPLACEMENT	0.0	0.0	0.0	1978.6	2077.5	2181.4	2290.5	2405.0	2525.2	2651.5
		2784.1	2923.3	3069.4	3222.9	3384.1	3553.3	3730.9	3917.5	4113.3	4319.0
		4534.9	4761.7	4999.8	5249.7	5512.2	5787.8	6077.2	6381.1	6700.1	7035.1
62	NEW PROGRAMS	0.0	0.0	0.0	494.7	521.9	550.6	580.9	612.8	646.6	682.1
		719.6	759.2	801.0	845.0	891.5	940.5	992.2	1046.8	1104.4	1165.1
		1229.2	1296.8	1368.1	1443.4	1522.8	1606.5	1694.9	1788.1	1886.5	1990.2
64	OPER BUD=SW+EE+ER+NP	0.0	0.0	98933.0	106786.2	112585.0	118699.0	125145.4	131942.3	139108.6	146664.6
		154631.4	163031.4	171888.2	181226.6	191072.8	201454.6	212400.9	223942.6	236112.1	248943.6
		262473.0	276738.4	291779.9	307639.7	324362.5	341995.0	360587.1	380193.7	400861.2	422656.5

VERSION 2
******* REPORT ********

CASE 4

		1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
		1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
8	SALARIES + WAGES	81753.9	86250.3	90994.0	95998.6	101278.5	106848.7	112725.4	118925.2	125466.0	132366.5
		139646.6	147327.1	155430.0	163978.5	172997.2	182512.0	192550.0	203140.1	214312.7	226099.8
		238535.1	251654.4	265495.2	280097.3	295502.5	311754.9	328931.2	346930.6	365874.8	386038.7
10	EXPENSE + EQUIPMENT	15283.5	15891.7	16527.4	17188.5	17876.0	18591.1	19334.7	20108.1	20912.4	21748.9
		22613.9	23523.6	24464.6	25443.1	26460.9	27519.3	28620.1	29764.9	30955.5	32193.7
		33481.4	34820.7	36213.5	37662.1	39168.5	40735.3	42364.7	44059.3	45821.6	47654.5
12	SUB-TOTAL SW + EE	97034.4	102142.0	107521.4	113187.1	119154.5	125439.8	132060.1	139033.3	146378.4	154115.4
		162265.5	170850.7	179894.5	189421.7	199458.1	210031.3	221170.1	232905.0	245268.2	258293.5
		272016.6	286475.1	301708.7	317759.3	334671.0	352490.2	371265.9	391049.8	411896.5	433863.2
52	EQUIPMENT REPLACEMENT	0.0	970.3	1009.1	1049.5	1091.5	1135.1	1180.5	1227.7	1276.8	1327.9
		1381.0	1436.3	1493.7	1553.5	1615.6	1680.2	1747.5	1817.4	1890.0	1965.6
		2044.3	2126.0	2211.1	2299.5	2391.5	2487.2	2586.7	2690.1	2797.7	2909.6
54	NEW PROGRAMS	0.0	485.2	511.9	540.0	569.7	601.1	634.1	669.0	705.8	744.6
		785.6	828.8	874.4	922.5	973.2	1026.7	1083.2	1142.8	1205.6	1271.9
		1341.9	1415.7	1493.5	1575.7	1662.3	1753.8	1850.2	1952.0	2059.3	2172.6
56	OPER BUD=SW+EE+ER+NP	97034.4	103597.5	109042.4	114776.6	120815.7	127176.0	133874.7	140930.0	148361.1	156188.0
		164432.1	173115.8	182262.6	191897.6	202046.9	212738.2	224000.7	235865.1	248363.8	261531.0
		275402.7	290016.8	305413.4	321634.6	338724.9	356731.1	375702.8	395692.0	416752.6	438945.5
65											
30	SALARIES + WAGES	0.0	0.0	86655.5	91421.5	96449.6	101754.3	107350.7	113254.9	119483.9	126055.4
		132988.4	140302.6	148019.2	156160.2	164748.9	173810.0	183369.4	193454.6	204094.5	215319.5
		227162.0	239655.7	252836.6	266742.5	281413.1	296890.7	313219.5	330446.3	348620.7	367794.6
32	EXPENSE + EQUIPMENT	0.0	0.0	12277.5	12768.6	13279.3	13810.5	14362.9	14937.5	15535.0	16156.3
		16802.6	17474.7	18173.7	18900.6	19656.7	20442.9	21260.6	22111.1	22995.5	23915.3
		24871.9	25866.8	26901.5	27977.6	29096.7	30260.5	31470.9	32729.8	34039.0	35400.5
34	SUB-TOTAL SW + EE	0.0	0.0	98932.3	105232.0	110826.3	116720.5	122930.8	129474.3	136369.0	143633.9
		151288.9	159355.1	167854.8	176811.4	186249.6	196195.4	206676.3	217721.3	229360.9	241627.2
		254554.2	268177.3	282535.5	297667.2	313614.9	330422.7	348137.3	366807.9	386484.2	407227.1
60	EQUIPMENT REPLACEMENT	0.0	0.0	0.0	989.3	1028.9	1070.0	1112.8	1157.3	1203.6	1251.8
		1301.9	1353.9	1408.1	1464.4	1523.0	1583.9	1647.3	1713.1	1781.7	1852.9
		1927.1	2004.1	2084.3	2167.7	2254.4	2344.6	2438.3	2535.9	2637.3	2742.8
62	NEW PROGRAMS	0.0	0.0	0.0	424.7	521.3	550.6	530.3	612.8	646.6	682.1
		719.6	759.2	801.0	845.0	891.5	940.5	992.2	1046.8	1104.4	1165.1
		1229.2	1296.8	1368.1	1443.4	1522.8	1606.5	1694.9	1788.1	1886.5	1990.2
64	OPER BUD=SW+EE+ER+NP	0.0	0.0	99922.3	106716.0	112377.0	118341.1	124624.5	131244.5	138219.2	145567.8
		153310.4	161468.3	170063.9	179120.8	188664.1	198719.8	209315.8	220481.3	232246.9	244645.3
		257710.5	271478.7	285988.0	301278.3	317392.1	334371.8	352270.6	371131.9	391010.0	411960.1